

Application No. 10/630,716
Amendment dated November 15, 2004
Reply to Office Action of August 26, 2004

REMARKS

Rejections under 35 USC §102(b)

Claims 1-4 and 8-9 are rejected under 35 USC §102(b) as being anticipated by Havemann (U.S. Patent No. 5,565,389).

Applicants respectfully traverse this rejection.

Claim 1 has been amended to recite “a first insulating film formed over the surface of the semiconductor substrate, the first insulating film covering the semiconductor element, and a top surface of the first insulating film being planarized.” Similarly, claim 8 has been amended to recite “a protective film formed over the surface of the semiconductor substrate, the protective film covering the semiconductor element, the protective film having a planarized surface,” and claim 9 has been amended to recite the step of “(b1) planarizing a surface of said protective film.”

In Havemann, the top surface of the BPSG (52) is not planarized, and the top surface of the SOG film (54) is not even. The thick SiO₂ film (56) is deposited on the SOG film (54) and the top surface of the SiO₂ film (56) is planarized in order to obtain an even underlying surface on which the wirings 18 are formed. The SiO₂ film (56) decreases the effect of the SOG film (54) reducing parasitic capacitance between wiring 18. Thus, Havemann does not teach or suggest the claimed recitations of the present application.

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For at least these reasons, independent claims 1, 8 and 9 patentably distinguish over Havemann. Claims 2-4, depending from claim 1, also patentably distinguish over Havemann for at least the same reasons.

Thus, the 35 USC §102(b) rejection should be withdrawn.

Rejections under 35 USC §103(a)

Claims 5-7 were rejected under 35 USC §103(a) as being obvious over Havemann (U.S. Patent No. 5,565,389) as applied to claims 1-3 above, respectively, and further in view of Gracias et al (US 2004/0023515A1).

Applicants respectfully traverse this rejection.

Gracias et al has been cited for allegedly disclosing that the surface of an organo-silicate glass can be modified using a silane-coupling agent. Such disclosure, however, does not remedy the deficiencies of Havemann discussed above.

For at least these reasons, claims 5-7, directly or indirectly depending from claim 1, also patentably distinguish over Havemann and Gracias et al.

Thus, the 35 USC §103(a) rejection should be withdrawn.

Claim 10 was rejected under 35 USC §103(a) as being obvious over Havemann (U.S. Patent No. 5,565,389) as applied to claim 9 above, and further in view of Wolf and Tauber.

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Wolf and Tauber has been cited for allegedly disclosing that chemically vapor deposited silicon dioxide films are widely used in VLSI. Such disclosures, however, does not remedy the deficiencies of Havemann and Gracias et al discussed above.

For at least these reasons, claim 10, directly or indirectly depending from claim 9, also patentably distinguish over Havemann and Wolf and Tauber.

Thus, the 35 USC §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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